Notice of Intention

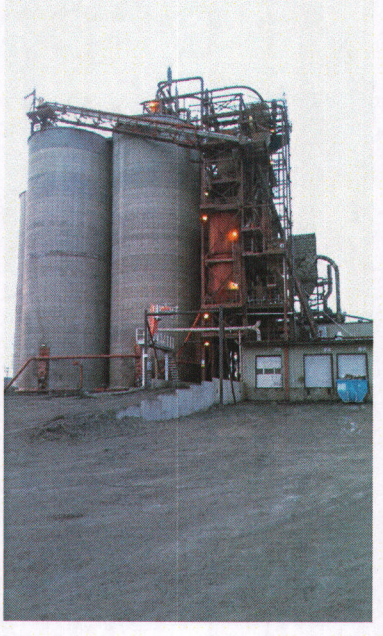
Large Mining Operation

AMERICAN GILSONITE COMPANY

DOGM NO. M/047/0010

Submitted by:
American Gilsonite Company
29950 S Bonanza Hwy,
Bonanza, UT 84008

To:
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801



RECEIVED
JUL 02 2015
DIV. OF OIL, GAS & MINING

CONTENTS

R647-4-101. Filing Requirements and Review Procedures

This NOI is submitted to the Utah Division of Oil, Gas, and Mining (DOGM) in compliance with part R647-4 of the Utah Minerals Reclamation Program by American Gilsonite Company (AGC).

The Bonanza process plant, offices, and town are located in Uintah County, Bonanza, Utah in Section 23 of T9S, R24E, Lots 7, 8, 9, 11, SWSE. The mine is sited within the following sections:

T9S, R24E: Sections 02, 03, 07, 12, 15, 16, 17, 22, 23, 24, 27, 28, 30, 32, 33, 34, and 35
T9S, R23E: Section 25
T11S, R24E: Sections 08, 09, 22, and 24
T11S, R23E: Section 01

Please see Attachment "A" for legal descriptions of the site locations.

This site has been mined since 1938 and is situated adjacent to the Bonanza and Independent Gilsonite Veins which were mined prior to 1977.

Gilsonite runs in parallel veins across the Uintah Basin that go from the southeast to the northwest. Currently AGC is mining in the following veins:

- Eureka
- Independent
- Bonanza
- Wagon Hound
- Little Emma

R647-4-102. Duration of the Notice of Intention

It is understood that, when approved, this NOI, including any subsequently approved amendments or revisions, remains in effect for the life of the mine. However, AGC acknowledges that DOGM may review the permit and require updated information and modifications when necessary.

R647-4-103. Notice of Intention to Begin Large Mining Operations

AGC's NOI addresses the requirement of the rules listed in this section as follows:

104. Operator(s), Surface and Mineral Owner(s)
105. Maps, Drawings, and Photographs
106. Operation Plan
108. Hole Plugging Requirements
109. Impact Assessment
110. Reclamation Plan
112. Variance
113. Surety

Rule R647-4-104 - Operator(s), Surface and Mineral Owners

Provide the name, address and telephone number of the individual or company who will be responsible for the proposed operation. **Business entities listed as the Permittee / Operator, must include names and titles of the corporate officers on a separate attachment.**

1. Mine name:	American Gilsonite
2. Operator:	American Gilsonite Company 29950 S Bonanza Hwy. Bonanza, UT 84008 Phone: 435-789-1921 Fax: 435-781-4563 e-mail: nlott@amgc.com
Type of business:	Corporation
Utah business entity #	73-1331788
Local business license #:	2014443
Issued by:	Uintah County
Registered Utah agent:	Douglas Maughan 29950 S Bonanza Hwy Bonanza, UT 84008 Phone:435-781-4534 Fax: 435-781-4563 e-mail: dmaughan@amgc.com
3. Permanent Address:	AGC 29950 S Bonanza Hwy Bonanza, UT 84008 Phone:435-789-1921 Fax: 435-781-4563
4. Contact person for permitting, surety, notices:	Nicholas J. Lott – General Manager 29950 S Bonanza Hwy Bonanza, UT 84008 Phone:435-789-1921 Fax: 435-781-4563 e-mail: nlott@amgc.com
Contact person for permitting & notices:	Brooks Bawden 29950 S Bonanza Hwy Bonanza, UT 84008 Phone:435-781-1921 Fax: 435-781-4563 e-mail: bbawden@amgc.com

5. Location of operation:	Uintah County See Attachment A
6. Ownership of the land surface:	AGC 29950 S Bonanza Hwy Bonanza, UT 84008
7. Owner(s) of record of the minerals to be mined:	AGC 29950 S Bonanza Hwy Bonanza, UT 84008
8. BLM lease or project file #	Refer to 106.3 Table I
9. Adjacent land owners	BLM, Uintah County, SITLA
10. Have the adjacent owners been notified in writing?	No
11. Does the Permitee/Operator have a legal Right to enter and Conduct mining Operations on the land covered by this Notice?	Yes

R647-4-105 - Maps, Drawings & Photographs

105.1 - Topographic base map, boundaries, pre-act disturbance
105.2 - Surface facilities map
105.3 – Drawings or Cross Sections (slopes, roads, pads, etc,)
105.4 – Photographs – None included at this time.

Maps for this section also include the information for table 1 in section 106.3.
Maps are included at the end of this document for convenience.

R647-4-106 - Operation Plan

106.1 - Minerals mined

Gilsonite ore is mined in the various mines in the Bonanza area and transported to the process plant for drying, processing and shipping.

106.2 - Type of operations conducted, mining method, processing etc.

Mining Sequence

The mining sequence for AGC is dependent on sales of Gilsonite. Each vein contains ore of slightly different properties which our various customers specify, based upon their needs. Mining is projected annually on the basis of a five year mining plan which is based on anticipated sales.

Mine development begins with the sinking of shafts on approximately 1,000 to 1,500 foot centers along the vein. Depth of the shaft and mining operation varies depending on the vein and can be as deep as 1,000-1,400 ft. The vein typically extends down through the Uintah Formation to the top of the Green River Formation. Shafts are connected underground by drifts (horizontal tunnels) in the ore. Once the shafts are connected with the drifts, mining starts in the block of Gilsonite on both sides of the shaft (Figure 2). Hand labor is used underground to reduce contamination of the ore by the surrounding rock. Miners using air driven chipping hammers break the Gilsonite working upward on a 45° angle. Broken ore falls by gravity to the bottom of a slope where it is pulled by vacuum into a vent pipe for transport to the surface. Air lift fans located on the surface pull the ore to the top of the head frame where it is discharged into a bin. The air stream used to transport the material is filtered of dust particles before being discharged to the atmosphere. The ore is transported by truck to the process plant where it is prepared for shipment.

Where Gilsonite has been removed, timbers are placed from wall to wall at intervals to provide support and a working platform. A horizontal pillar of approximately thirty-five feet is left between the surface and the mined out portion of the mine. Horizontal pillars which are approximately 10 to 20 feet thick are left between different working areas of the mine to support the walls.

Once the minable Gilsonite is completely removed, another shaft is developed farther along the vein and drifts installed for the sequence to begin again. Please see Figure 1.

The typical "life" of a mine usually varies between 5 and 10 years depending upon the type of ore and market conditions. Occasionally, a mine site may become inactive and remain in that state for two to three years until the particular grade of Gilsonite is required by users. During these stages, most equipment remains on site.

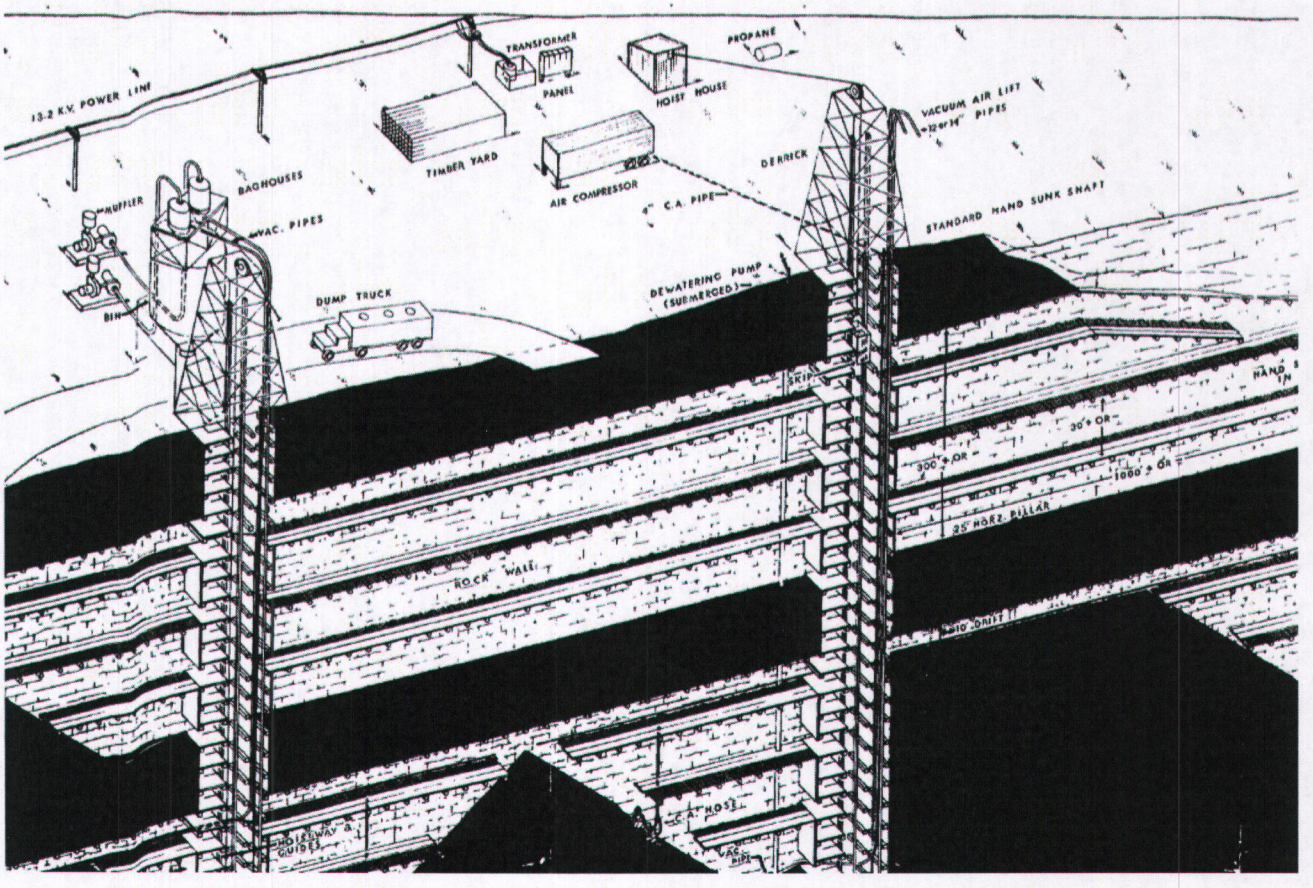


Figure 1: Gilsonite underground mining methods (Boden & Tripp 2012)

Processing

Gilsonite is classified by softening point and other properties into several basic product grades. Typically each vein has a different type of ore. For example, Gilsonite from the Eureka vein has a different softening point than Gilsonite from the Bonanza vein. Since Gilsonite is a naturally occurring product, there is also variation within the vein. Careful segregation and processing assures adequate uniformity for each end use. Figure 2 depicts the typical processing and packaging process.

Ore from the mines is transported by truck to the process plant and dumped into receiving bins used to segregate the ore prior to entering the plant. From the receiving bins, it is transported through a screening system where the rock is separated. The ore then goes on to the dryer where excess moisture is removed. The ore is then classified according to particle size and sent to product specific silos. From the silos the ore is fed to product bins where it is either loaded directly as bulk product, fed to the bag packer, or to the pulverizer. Pulverized product is segregated into product bins and can be loaded directly as bulk product or packaged.

The modern and efficient mining and processing methods developed by AGC have overcome the dusty and sometimes hazardous conditions associated with early Gilsonite mining. The vacuum airlift system keeps the mine swept with a continuous flow of fresh air. A conveying system in the process plant is either pneumatic or enclosed. Process air from both the mines and the plant is filtered of all dust before being exhausted to the atmosphere.

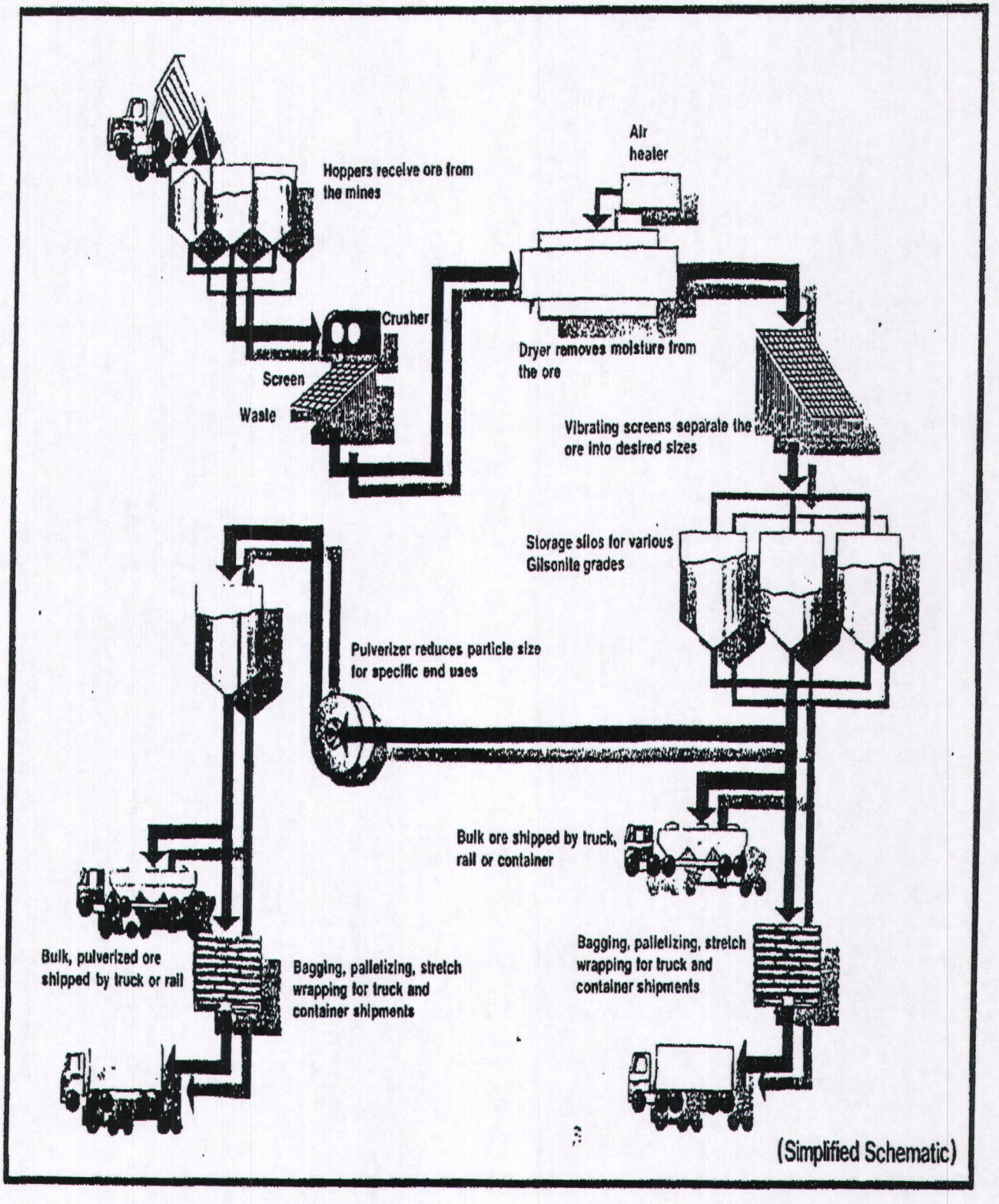


Figure 2: Typical Processing and Packaging Process

Concurrent Reclamation

Once all recoverable Gilsonite is removed, the surface facilities are moved to a new mine site and the shaft is capped and reclamation begins. Reclamation is discussed in more detail in Section 110 below.

106.3 - Estimated acreages disturbed, reclaimed, annually

Approximately 192.74 acres are currently in use or projected to have additional disturbances on them in the next 5 years (Table I) (Maps 1-5)(Attachment "A"). These include all access roads, storage piles, settling ponds, processing areas, and mine areas. Typically the overall disturbed acreage is expected to remain fairly constant because as one mine site finishes up its life and is reclaimed (See section 110 for reclamation) another one is started up.

Table I: M/047/0010 Current mining and processing facilities.

Area	Vein	Estimated Disturbed Acreage	Land Owner	Location
Bonanza Processing Facility	_____	45	AGC	40°0'59.33" N 109°10'28.89"W
Bonanza Town & Offices	_____	15	AGC	40°1'9.36"N 109°10'30.02" W
Float Plant Storage Piles	_____	25	SITLA/AGC	40° 2'13.94"N 109° 7'21.19"W
Mine Locations	_____	91.7	BLM/AGC	See Attachment "A"
Solar Pad	_____	4.7	AGC	40° 2'7.75"N 109° 6'40.21"W
Storm Water Drain Line	_____		BLM: UTU-24147	40° 1'8.36"N 109°10'24.32"W
Waste Water Line	_____		BLM: UTU-13482	40° 1'25.01"N 109°10'43.80"W
Storm & Waste Water Ponds	_____	4.3	BLM: UTU-13482	40° 1'35.81"N 109°10'45.47"W
Water Line & Cistern	_____		SITLA: UTSL-0065283	40° 0'24.00"N 109°10'7.60"W
White River Wells & Pump	_____	7	Uintah County: 1945 Easement	39°58'46.74"N 109°10'42.75"W

106.4 - Nature of materials mined, waste and estimated tonnages

Ore

The current underground method of mining Gilsonite keeps surface disturbances to a minimum. The annual amount of ore generated is greatly dependent on quarterly demand. Based on

projected demand through 2020, we anticipate average annual production to average 70,000 tons per year.

Historic Mining

Gilsonite mining has occurred in the area since the late 1800's. Much of the mining removed the ore all of the way to the surface leaving open cuts that stretch for miles. AGC has taken an active role to protect the public by fencing off the open cuts and exposed shafts and putting up warning signs. These fences are regularly inspected and maintained.

106.5 - Existing soil types, location, amount

As described in the previous NOI, soil was sampled at each mine site to determine the suitability for revegetation. Where topsoil existed, it was sampled. If there was no topsoil salvaged, the sample was then collected from the center of the mine site. Analysis for each individual mine site sampled found the pH of the soil to range between 7.8 and 8.7.

Prior to reclamation of an individual site, soil analysis of the site will be compared to the appropriate "suitability chart. Should deficiencies or imbalances of conditions be present, resulting in non-suitable conditions, soil amendments will be made. These amendments will consist of any or all of the following: mulching at 2,000 pounds per acre, addition of phosphate, nitrogen, potassium, calcium sulfate or any other additive that may be required. Plans for the individual sites will necessarily be site specific and will receive concurrence from Utah DOGM personnel prior to reclamation procedures.

106.6 - Plan for protecting & re-depositing soils

Topsoil is limited in most areas surrounding Bonanza. The topsoil is scraped and either piled on site for the reclamation procedure or it is used in berms and dikes to meet the MSHA requirements. These berms will then be seeded with the same seed mix to be used for final reclamation of the site.

Topsoil will be stockpiled in the following manner by a dozer or bucket loader:

- Stockpiles will be located on relatively level areas, protected from wind, water erosion, vehicular traffic, and contaminants. Stockpiles will be constructed on upland areas to minimize drainage into stockpile areas.
- Stockpiles will be rectangular in shape to accommodate equipment capabilities.
- Grading and contouring will be directed towards the creation of maximum out slopes of 2H (horizontal) to lV (vertical).
- Topsoil to be stockpiled for greater than six months will be seeded to control erosion. The seed mix designated for the site will also be used on the stockpile, since most piles shall be quite small. Seeding will be conducted during April and May or October and November. Fertilizer will be applied the first spring following seeding.
- All stockpiles will be marked with "Topsoil Stockpile/Do Not Disturb"

See information in Section 109.3.

106.7 - Existing vegetation - species and amount

The areas surrounding the mine sites are comprised of three basic vegetation types: Pinyon Juniper, Sagebrush and Shadscale. Percent cover was measured from a low of 4.3% at Pride-of-the-West to 25.9% at Wagon hound, with an overall average of 15.0%. Reclamation will be considered successful after at least three growing seasons, a cover of 70% of original is achieved. This vegetation study has been provided to UDOGM previously and is on file with AGC and is available upon request.

106.8 - Depth to groundwater, extent of overburden, geology

Depth of Groundwater

The depth of groundwater encountered ranges from 350 feet to 900 feet. In some cases ground water was not encountered and in other cases water depths were not kept. Below provides a list of ground water depths by mine site.

ESTIMATED ORIGINAL GROUNDWATER DEPTH

Page 5b Revised (08-04-92)

MINE SITE	COLLAR ELEVATION	DEPTH TO WATER	WATER ELEVATION
B-13	5300	900 '	4400
B-[illegible]0	5350	820 '	4530
B-[illegible]1	5280	Not Encountered	----
B-[illegible]4	5260	Not Encountered	----
E-[illegible]4	5380	820 '	4560
E-15	5400	900 '	4500
E-[illegible]9	5220	870 '	4350
E-30	5220	870 '	4350
E-[illegible]1	5200	850 '	4350
H-1	5840	Not Encountered	----
H-2	5800	Not Encountered	----
H-[illegible]0	5520	Not Encountered	----
I-9	5470	350 '	5120
I-10	5460	550 '	4910
I-[illegible]5	5340	Not Encountered	----
I-[illegible]6	5420	790 '	4630
I-13	5440	800 '	4640
I-[illegible]4	5460	Not Encountered	----
LE-3	5380	510 '	4870
LE-4	5400	530 '	4870
LE-5	5330	520 '	4810
LE-[illegible]6	5330	Not Encountered	----
PW-3	5620	Not Encountered	----
PW-4	5560	Not Encountered	----
R-2	6200	Not Encountered	----
R-3	6220	Not Encountered	----
R-4	6200	Not Encountered	----
WH-11	5620	Not Encountered	----
WH-12	5600	Unknown	----
B-16/B-12	5460	Unknown	----
I-30	5320	Unknown	----
LE-19	5700	Unknown	----

NOTE: Water depths were estimated from old production records of which water depths were not normally kept.

Extent of Overburden

There is no overburden because the mine is underground.

Geology

Figure 3 provides a generalized stratigraphic column.

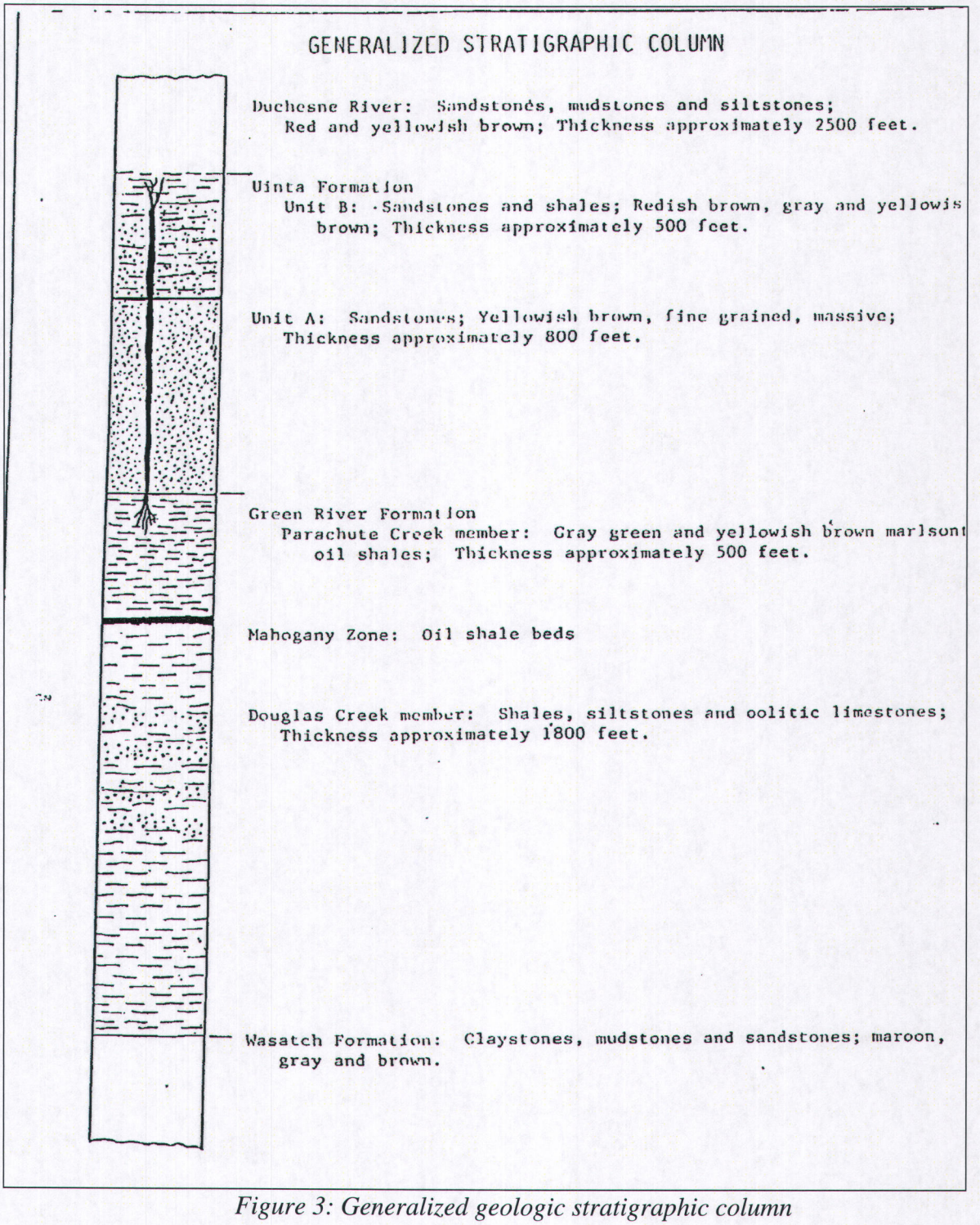


Figure 3: Generalized geologic stratigraphic column

106.9 - Location & size of ore, waste, tailings, ponds

See Attachment "A"

R647-4-108 - Hole Plugging Requirements

Exploration and shaft location core drilling are taking place to prove out reserves and to identify the best location for future shafts. Typically AGC does not encounter artesian holes; however, AGC has implemented the following procedures for plugging and reclamation of the holes:

1. Drill holes shall be properly plugged as soon as practical and shall not leave unplugged for more than 30 days without approval by DOGM.
2. Dry holes and non-artesian holes that do not produce significant amounts of water may be temporarily plugged with a surface cap to enable AGC to re-enter the hole for the duration of the set operations.
3. Setting a nonmetallic perma-plug at a minimum of five feet below the surface, or returning the cuttings to the hole and tamping the returned cuttings to within five feet of ground level. The hole above the perma-plug or tamped cuttings will be filled with a cement plug.
4. Drill holes that encounter water, oil, gas or other potential migratory substances shall be plugged in the subsurface to prevent the migration of fluid from one strata to another. If water is encountered, plugging shall be accomplished as outlined below:
5. If artesian flow is encountered during or upon cessation of drilling, a cement plug shall be placed to prevent water from flowing between geologic formations and at the surface. The cement mix should consist of API Class A or H cement with additives as needed. It should weigh at least 13.5 lbs/gal, and be placed under the supervision of a person qualified in proper drill hole cementing of artesian flow. Artesian bore holes must be plugged in the described manner, prior to removal of the drilling equipment from the well site. If the surface owner of the land affected desires to convert an artesian drill hole to a water well, the owner must notify the Division in writing accepting responsibility for the ultimate plugging of the drill hole.
6. Holes that encounter significant amounts of non-artesian water shall be plugged by:
    - Placing a 50 ft. cement plug immediately above and below the aquifer; or
    - Filling from the bottom up (through the drill stem with a high grade bentonite/water slurry mixture. The slurry shall have a Marsh Funnel viscosity of at least 50 seconds per quart prior to the adding of any cuttings.

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Surface Water

Coyote Wash is an ephemeral stream that runs through the Bonanza mine sites and only has water during the spring runoff and during heavy rain. Several dry washes that are tributaries to Coyote Wash also pass through the Bonanza mine sites. Coyote Wash crosses several of the Gilsonite veins as it flows approximately 23 miles to the White River. The White River is located approximately four miles south of the Bonanza mine sites and is not directly affected by AGC's current operations.

Ground Water

Mining of Gilsonite is hampered by the presence of perched ground water that frequently infiltrates into the veins. Individual mines must be de-watered prior to and during mining operations. The ground water is discharged at various locations according to AGC's UT-0000167 NPDES permit (See Table V). The water is discharged into dry washes that connect with Coyote Wash, which connects to the White River. Coyote Wash is an ephemeral stream which only has water in it during the spring runoff and during heavy rain. Even with the discharge of 450-600 gpm, the water flows have been observed to be anywhere from 3 to 21 miles from the discharge before it reenters the ground. The distance to the White River from the discharge is approximately 22 miles.

The effect of the discharged water on the surrounding environment is beneficial. It is the only continuous flowing source of water in the immediate area. Wildlife such as ducks, antelope, deer, wild horses, and occasionally elk frequent the area. Domestic sheep graze in the vicinity of the discharge areas and also use the water for drinking. The discharge produces an approximately 5-mile-long area of green vegetation in what would otherwise be a relatively un-vegetated area.

Table V: Discharge locations and status for AGC's NPDES Permit UT-0000167

Discharge Locations		**Discharge Location Information**					
ID	AGC ID	Latitude	Longitude	Section	Township	Range	Status
001A	I-12	40°02'27"	109°13'18"	16	9S	24E	Discharging
002A	I-10	40°01'11"	109°10'18"	24	9S	24E	Not currently discharging
003A	I-30	40°02'06"	109°12'30"	15	9S	24E	Not currently discharging
010A	E-30	40°03'32"	109°10'56"	2	9S	24E	Not currently discharging
013A	LE-5	40°00'09"	109°14'59"	30	9S	24E	Not currently discharging
015A	I-15	40°01'51"	109°11'58"	15	9S	24E	Not currently discharging
016A	E-31	40° 3' 48"	109° 10' 30"	2	9S	24E	Not currently discharging
017A	B-44	40°02'13"	109°13'47"	17	9S	24E	Periodic Discharge
020A	E-29	40°03'40"	109°10'44"	2	9S	24E	Not currently discharging
023A	E-27	40°03'36"	109°10'34"	2	9S	24E	Not currently discharging
024A	E-31 Comb	40° 3'39"N	109°11'46"	3	9S	24E	Discharging
028A	ER Plant	40°01'0.3"	109°10'21"	23	9S	24E	Not currently discharging
029A	B-48	40°02'19"	109°14'07"	17	9S	24E	Not currently discharging
030A	B-50	40°02'21"	109°14'16"	17	9S	24E	Not currently discharging
031A	B-46	40°02'14"	109°13'57"	17	9S	24E	Not currently discharging
032A	B-52	40°02'26"	109°14'30"	17	9S	24E	Not currently discharging
033A	WH-4	39°59'44	109°11'8	35	9S	24E	Not currently discharging

109.2 – Wildlife Habitat and Special Status Species

Wildlife

The Bonanza mine sites overlap year-long mule deer habitat, year-long pronghorn habitat, and sage-grouse winter habitat. Species commonly found in the area surrounding the Bonanza mine

sites include midget faded rattlesnakes, desert cottontails, coyotes, mule deer, and pronghorn antelope.

Because the mining occurs underground, surface disturbance affecting wildlife habitat would be limited to entrance shafts and surface facilities such as buildings, utilities, storage areas, parking areas, settling ponds, and roads. Vehicular traffic in the Bonanza mine area may increase the potential for vehicular collisions with wildlife. Human activity at the mine sites may affect wildlife behavior, causing them to avoid these areas.

Surface disturbance stipulations in the Bureau of Land Management's (BLM's) Vernal Field Office Record of Decision and Approved Resource Management Plan would be applied where applicable to help prevent impacts to wildlife (BLM 2008)[1].

Special Status Species

A list of endangered, threatened, and candidate species found in Uintah County can be found on the Utah Division of Wildlife Resources website (http://dwrcdc.nr.utah.gov/ucdc/viewreports/te_cnty.pdf). Table IV lists the endangered, threatened, and candidate species with the potential to occur near the Bonanza mine sites.

Table VI: Federally Listed Endangered, Threatened, and Candidate Species with the Potential to Occur Near the Bonanza Mine Sites

Common Name	Scientific Name	Status
Greater Sage-Grouse	*Centrocercus urophasianus*	Candidate species
White River Beardtongue	*Penstemon scariosus var albifluvic*	Candidate species
Graham Beardtongue	*Penseman grahamii*	Proposed Threatened
Black Footed Ferret	*Mustela nigripes*	Endangered

The following measures would be applied where applicable to help prevent impacts to special status plant and animal species:

- Site inventories will be conducted to determine habitat suitability for federal listed plant species under the Endangered Species Act. Site inventories are required in known or potential habitat for all areas proposed for surface disturbance prior to initiation of project activities, at a time when the plant can be detected, and during appropriate flowering periods.
- Within ½ mile of known active sage-grouse leks, use the best available technology such as installation of multi-cylinder pumps, hospital sound reducing mufflers, and placement of exhaust systems to reduce noise.
- No surface-disturbing activities within 1/4 mile of active sage-grouse leks year round.
- No permanent facilities or structures within 2 miles of sage-grouse leks when possible.
- No surface-disturbing activities within 2 miles of active sage-grouse leks from March 1 to June 15.
- Avoidance and minimization measures included in the *Cooperative Plan for the Reintroduction and Management of Black-Footed Ferrets in Coyote Basin, Uintah*

1 BLM. 2008. Vernal Field Office Record of Decision and Approved Resource Management Plan. BLM-UT-PL-09-003-1610. UT-080-2005-71. Available at http://www.blm.gov/style/medialib/blm/ut/vernal_fo/planning/rod_approved_rmp.Par.12251.File.dat/VernalFinalPlan.pdf. Accessed June 25, 2015.

County, Utah published by the Utah Division of Wildlife Resources in September, 1996 will be followed.

- The use of herbicides, chemical treatments, and habitat manipulations should be restricted within special status species populations and habitat.

109.3 –Soil and Vegetation Resources

Soils

Soil was sampled at each mine site to determine the suitability for revegetation. Where topsoil existed, it was sampled. If no topsoil was salvaged, the sample was collected from the center of the mine site. The pH of the soil sampled at the Bonanza mine sites was found to range between 7.8 and 8.7. Laboratory analysis of the soil samples are on file at the AGC office.

Prior to reclamation of an individual site, soil analysis of the site will be compared to a suitability chart. Should deficiencies or imbalances of conditions be present, resulting in non-suitable conditions, soil amendments would be made. These amendments would consist of any or all of the following: mulching at 2,000 pounds per acre, addition of phosphate, nitrogen, potassium, calcium sulfate, or any other additive that may be required. Plans for the individual sites would necessarily be site-specific and would receive concurrence from DOGM prior to reclamation procedures. More information about reclamation can be found in Section R647-4-110 - Reclamation Plan.

Topsoil will be stockpiled in the following manner by dozer or bucket loader:

1. Stockpiles will be located on relatively level areas, protected from wind, water erosion, vehicular traffic, and contaminants. Stockpiles will be constructed on upland areas to minimize drainage into stockpile areas.
2. Stockpiles will be rectangular in shape to accommodate equipment capabilities.
3. Grading and contouring will be directed towards the creation of maximum outslopes of 2H (horizontal) to IV (vertical).
4. Topsoil to be stockpiled for greater than six months will be seeded to control erosion. The seed mix designated for the site will also be used on the stockpile, since most piles should be quite small. Seeding will be conducted during April and May or October and November. Fertilizer will be applied the first spring following seeding.
5. All stockpiles will be marked with "Topsoil Stockpile/Do Not Disturb" signs.

Information about existing topsoil stockpiles, such as locations and sizes, is on file at the AGC office.

Because the mining occurs underground, surface disturbance to soil resources would be limited to entrance shafts, surface facilities (e.g., buildings, utilities, parking areas, etc.), and roads. Surface disturbance stipulations in the BLM's Vernal Field Office Record of Decision and Approved Resource Management Plan would be applied where applicable to help prevent impacts to soils (BLM 2008).

Vegetation

The areas around the Bonanza mine sites have three basic vegetative types: Pinyon-juniper, Sagebrush and Shadscale. Percentage of cover ranged from low of 4.3% at pride of the west to 25.9% at Wagon hound, with overall average of 15.0%.

Reclamation will be considered successful when, after at least 3 growing seasons, a cover of 70% of the original is obtained. Existing vegetation studies for the Bonanza mine sites are on file at the AGC office. More information about reclamation can be found in Section R647-4-110 - Reclamation Plan.

Because the mining occurs underground, surface disturbance to vegetation would be limited to entrance shafts, surface facilities (e.g., buildings, utilities, parking areas, etc.), and roads. Surface disturbance stipulations in the BLM's Vernal Field Office Record of Decision and Approved Resource Management Plan would be applied where applicable to help prevent impacts to vegetation (BLM 2008).

109.4 - Slope stability, erosion control, air quality, safety

Slope Stability
Because the mining occurs underground, slope stability is not an issue.

Erosion Control
Due to the arid nature of the landscape, relatively little runoff is expected from ephemeral drains or overland flow in or near the Bonanza mine sites. When soil is removed from the mining areas, it will be skimmed or graded off of the top 6 inches (or depth of topsoil) into stockpiles. The stockpiles will be seeded to minimize losses due to erosion.

Air Quality
In the processing plant, conveying of ore is either pneumatic or otherwise enclosed. Process air from both the Bonanza mine sites and plant is filtered of all dust before being exhausted to the atmosphere. Because the mining occurs underground and the process air is filtered of any dust particles before it is released to the atmosphere there would be little if any impact expected on air quality. Truck transport of the ore from the holding bin to the processing plant would cause some vehicular emissions. Existing air quality data for the Bonanza mine sites are on file at the AGC office.

Surface disturbance stipulations in the BLM's Vernal Field Office Record of Decision and Approved Resource Management Plan would be applied where applicable to help prevent impacts to air quality (BLM 2008).

Public Health and Safety
There are hazards to public safety stemming from pre-1975 mining operations that left mine openings at the surface. Current mining operations are minimizing such safety hazards through design methods, planning, and improved property control.

It is the policy of AGC to keep all open veins fenced and posted, to periodically inspect these fences and repair as necessary. Active mine shafts are fenced with the cage secured in the shaft opening at the surface when no mining is underway. Current shaft closure is completed with a 12-foot concrete slab with a minimum of 2 feet of overburden placed on top of the slab to site grade before site reclamation is commenced.

R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Current and post mining land use includes wildlife and livestock grazing, and oil and gas production.

110.2 - Roads, high walls, slopes, drainages, pits, etc., reclaimed

Attachment "A" includes anticipated areas of contemporaneous and final reclamation for mine features (entrance shafts, surface facilities (e.g., buildings, utilities, parking areas, etc.), and roads)

Upon commencement of any contemporaneous and final reclamation, equipment and structures will be dismantled and removed from the site. All waste material generated through demolition will be transported off site and disposed of in permitted waste storage facilities/landfills. No onsite storage of waste generated through site reclamation is anticipated.

Access to all closed mining areas will be controlled by AGC during reclamation to prohibit any unauthorized access. Any shafts will be sealed with a cement pad as previous described.

110.3 - Description of facilities to be left (post mining use)

No facilities will be left after reclamation is completed.

110.4 - Description or treatment/disposition of deleterious or acid forming material

No deleterious and/or acid forming materials are present nor would require consideration prior to site reclamation.

110.5 - Revegetation planting program

Site reclamation will be performed during the fall (September -November). Results from historical reclamation plantings indicate that fall reclamation is the most successful timeframe for reclamation within the desert climate of the permit area.

Backfilling and Grading and Soil Material Replacement – No extensive backfilling and/or grading are anticipated. Most locations are currently or are anticipated to be approximately level. However, those that are not will be returned as close to the original contours as possible. Slopes are not expected to exceed 2H: 1V in any case.

Prior to soil/growth media redistribution, the site will be ripped by a dozer (or similar piece of equipment) to a minimum depth of eight (8) inches. In order to reestablish the required ground cover, up to 12 inches of suitable soil material /growth media (depending on underlying material) will be redistributed on the areas to be reseeded. This material will be retrieved from existing topsoil stockpiles, and berms.

Soil material within the stockpiles and berms will be dozed and graded onto the disturbed area. At this time, AGC believes that suitable soil material for backfilling and grading is present within the existing topsoil stockpiles and berms. If sufficient stockpiled soil isn't available in these features, soil borrow areas will need to be located. AGC will coordinate with DOGM if soil borrows are required.

Table VIII – Available Topsoil for Reclamation

Site	Stock Pile Yards^3	Berms Yards^3	Total Yards^3
B-16/ B-12	200	200	400
B-46	___	100	100
B48	___	100	100
B-50	___	100	100
B-52	200	100	300
E-14	___	100	100
E-15	___	100	100
E-29/ E-28	___	200	200
E-30	50	50	100
E-30	___	100	100
H-1	___	___	___
H-2	___	___	___
H-10	___	___	___
I-9	___	___	___
I-10	___	___	___
I-15	184	10	194
I-16	___	___	___
I-18	___	___	___
I-24	___	___	___
I-30	___	100	100
LE-3	___	___	___
LE-4	___	___	___
LE-5	___	___	___
LE-6	___	___	___
LE-7	___	100	100
LE-8	___	100	100
RW-2	___	___	___

Site	Stock Pile Yards^3	Berms Yards^3	Total Yards^3
RW-3	___	___	___
RW-4	___	___	___
WH-12	___	___	___
WH-15	___	___	___
WH-16	___	___	___
WH-17	___	___	___
WH-18	___	___	___
Total:			2094

Following recontouring and ripping of the site, topsoil salvaged prior to mining will be spread by a dozer (or similar piece of equipment) to a thickness approximately equivalent to the coverage depth prior to its removal. Mulch may be added at this time, depending upon the test results, past and future.

Contour trenches will be constructed as need to catch sediments from runoff These trenches will reduce the velocity and scouring ability of any surface flow and provide increased retention of water and slow the release of runoff through improved infiltration.

Seed Bed Preparation and Seeding Methodology – The seedbed will be ripped or disked to ensure that there is enough ground loosened to provide for proper plant growth. Seed and fertilizer (as needed) will then be added. See Table IX for seed mixture. Seeding will be done by broadcast or drilling. The seed amounts will be doubled for broadcast planting. Drill seeding would be conducted with a rangeland farm drill. Broadcast seeding would use a harrow to rake the seed into the soil.

Mulching at 2,000 pounds per acre (with ce1iified weed free hay), and addition of phosphate, nitrogen, potassium, calcium sulfate or other additive may be required for fertilization. Mulch will be either spread by hand or automated spreader at a rate of two thousand (2,000) pounds per acre.

Most fertilizers, when needed, will be spread at the time (fall) of reclamation. Nitrogen, as needed, will be spread in the spring. Because of the wide soil diversity experienced over the operation, each portion of the mine site must be treated separately, thus no "generic" plan is possible. Refer to the individual mine site inventory sheets in Table VIII.

Table IX – Seed Mixture for T9S R24E.

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	*Elymus elymoides*	3.0	¼ - ½"
Lewis Flax	*Linum lewisii*	2.0	½"
Needle and Thread	*Stipa comata*	3.0	½"
Bluebunch Wheatgrass	*Pseudoroegneria spicata*	3.0	½"
Shadscale	*Atriplex confertifolia*	1.0	½"
Western Wheatgrass	*Pascopyrum smithii*	3.0	½"
Gardner's saltbush	*Atriplex gardneri*	0.50	½"
Scarlet globemallow	*Sphaeralcea coccinea*	0.10	⅛ – ¼"

All pounds are pure live seed.
All seed and mulch would be certified weed free.
Rates are set for drill seeding; double rate if broadcasting

R647-4-113 – Surety

The reclamation surety bonds are contained in Attachment "B". A summary of the estimated costs of reclamation is included in Attachment "A".

XI. SIGNATURE REQUIREMENT

I hereby certify that the foregoing is true and correct. **(Note: This form must be signed by the owner or officer of the company/corporation who is authorized to bind the company/corporation).**

Signature of Permittee / Operator/Applicant: _____

Name (typed or print): _____

Title/Position (if applicable): _____

Date: _____

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.
Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: ( ) Yes ( ) No

Attachment "A"

Updated 6/23/15

Mine Description						Mine Location	Permitting Details		Reclamation Contract and Bonding			
Vein Name	AGC Reference	Property Owner	Claim or Lease Designation	Mine Type	Acreage Disturbed	Legal Discription (SLBM)	Activity Status	Reclamation Stage	Bond Holder	Bond Requirements (DOGM)	Bond Requitrments (BLM)	Comments/Remarks
Bonanza Site	Operations area with houses					T9S R24E, SE ¼ Sec 23			DOG1	$ 487,740		
Eureka	E-34	Patented	White River 27	Shaft	1.50	T9S R24E, NE ¼ Sec 03	Active	-	DOGM	$ 42,324	$ -	Full Mine Site
Eureka	E-34W				0.02		Active	-	DOGM	$ 10,905	$ -	Water well
Eureka	E-33	Patented	White River 26	Shaft	1.80	T9S R24E, NE ¼ Sec 03	Active	-	DOGM	$ 42,324	$ -	Full Mine Site
Eureka	E-32	Patented	White River 25	Escape	0.50	T9S R24E, NW ¼ Sec 02	Active	-	DOGM	$ 26,729	$ -	Headframe, Concrete, Shaft cap, Earth, Reveg
Eureka	E-31	Patented	White River 25	Shaft	1.00	T9S R24E, SW ¼ Sec 02	Active	-	DOGM	$ 31,420	$ -	Full Mine Site w/o water well
Eureka	E-Vein water treatment	SITLA	ML-31999	Storage	0.25	T9S R24E, SW ¼ Sec 02	Active	-	DOGM	$ 5,000	$ -	Fence, tanks, shed
Eureka	E-30W	Patented	White River 24	Escape	0.30	T9S R24E, SW ¼ Sec 02	Inactive	-	DOGM	$ 4,470	$ -	Old E-23 site
Eureka	E-30	Patented	White River 24	Shaft	2.00	T9S R24E, SW ¼ Sec 02	Inactive	-	DOGM	$ 8,395	$ -	Has three adjacent ponds
Eureka	E-29	Patented	White River 23	Shaft	1.25	T9S R24E, SE ¼ Sec 02	Inactive	-	DOGM	$ 8,395	$ -	-
Eureka	E-28	Patented	White River 23	Escape	0.50	T9S R24E, SE ¼ Sec 02	Inactive	-	DOGM	$ 973	$ -	-
Eureka	E-27	Patented	White River 22	Shaft	1.00	T9S R24E, SE ¼ Sec 02	Inactive	-	DOGM	$ 9,889	$ -	-
Eureka	E-14	Patented	White River 21	Shaft	0.00	T9S R24E, NW ¼ Sec 12	Inactive	-	DOGM	$ -	$ -	Applied to E-34
Eureka	E-15	Patented	White River 20	Shaft	0.00	T9S R24E, NW ¼ Sec 12	Inactive	-	DOGM	$ -	$ -	Applied to E-34
Eureka	E-21	Patented	Lorna Doone	Trench	0.00	T9S R24E, SW ¼ Sec 07	Inactive	-	DOGM	$ 1,494	$ -	Applied to E-34
Independence	I-12	SITLA	ML-851	Shaft	1.47	T9S R24E, NW ¼ Sec 16	Inactive	-	DOGM	$ 13,934	$ -	Cap, Shed, Earth, Reveg
Independence	I-30	BLM	UTU-78405	Shaft	1.00	T9S R24E, SW ¼ Sec 15	Active	-	BLM	$ -	$ 26,729	Headframe, Concrete, Shaft cap, Earth, Reveg (Est - BLM bond)
Independence	I-15	Patented	Cumberland	Shaft	1.00	T9S R24E, SW ¼ Sec 15	Active	-	DOGM	$ 26,729	$ -	Headframe, Concrete, Shaft cap, Earth, Reveg
Independence	I-16	Patented	Triumph	Shaft	0.00	T9S R24E, SE ¼ Sec 15	Inactive	-	DOGM	$ -	$ -	Reclaimed
Independence	I-18	Patented	Break of Day	Shaft	3.00	T9S R24E, NE ¼ Sec 22	Inactive	-	DOGM	$ 11,112	$ -	2 buildings, Earth, ReVeg, Hoist
Independence	I-24	Patented	Big Chief	Shaft	1.00	T9S R24E, NW ¼ Sec 23	Inactive	-	DOGM	$ 9,889	$ -	Fencing, Gate, Earth, Reveg, Conveyor
Independence	I-10	Patented	Rangely Bell	Shaft	1.00	T9S R24E, SE ¼ Sec 23	Inactive	-	DOGM	$ -	$ -	Applied to E-34
Independence	I-9	Patented	Rangely Bell	Shaft	1.00	T9S R24E, SW ¼ Sec 24	Inactive	-	DOGM	$ -	$ -	Applied to E-34
Bonanza	B-50	BLM	UTU-0126940	Escape	1.25	T9S R24E, NE ¼ Sec 17	Active	-	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Bonanza	B-52	BLM	UTU-0126940	Developme	1.25		Development	-	BLM	$ -	$ 13,934	Cap, Earth, Reveg
Bonanza	B-48	BLM	UTU-0126940	Shaft	1.00	T9S R24E, NE ¼ Sec 17	Active	-	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Bonanza	B-46	BLM	UTU-0126940	Shaft	1.00	T9S R24E, NE ¼ Sec 17	Active	-	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Bonanza	B-44	BLM	UTU-0126940	Shaft	1.00	T9S R24E, NE ¼ Sec 17	Inactive	Demolition	BLM	$ -	$ 24,797	Water well, Cap, Earth, Reveg
Bonanza	B-42	Private	NA-Fee	Shaft	0.00	T9S R24E, NW ¼ Sec 16	Inactive	Demolition	DOGM	$ -	$ -	Reclaimed
Bonanza	B-40	Private	NA-Fee	Shaft	0.00	T9S R24E, SW ¼ Sec 16	Inactive	Reclaimed	DOGM	$ -	$ -	Reclaimed
Bonanza	B-38	Private	NA-Fee	Shaft	2.00	T9S R24E, SW ¼ Sec 16	Inactive	Demolition	DOGM	$ 11,134	$ -	Pond, Electrical panel
Bonanza	B-37	-	NA	-	0.00	-	Inactive	-	DOGM	$ -	$ -	Reclaimed
Bonanza	B-28	Patented	Cabinet	Shaft	0.00	T9S R24E, SW ¼ Sec 23	Inactive	Capping	DOGM	$ 10,385	$ -	Capping
Bonanza	B-14	Patented	Hill Top	Shaft	0.50	T9S R24E, SW ¼ Sec 23	Inactive	Capping	DOGM	$ 10,385	$ -	Capping
Bonanza	B-16	Patented	Hill Top	Shaft	1.00	T9S R24E, SE ¼ Sec 23	Inactive	Unknown	DOGM	$ 13,934	$ -	Cap, Earth, Reveg
Bonanza	B-12	Patented	Foothill	Escape	0.00	T9S R24E, SE ¼ Sec 23	Inactive	Unknown	DOGM	$ 293	$ -	Reclaimed
Wagon Hound	WH-22	BLM	UTU-0126943	-	0.00	-	Inactive	-	-	$ -	$ -	Reclaimed
Wagon Hound	WH-21	BLM	UTU-0126943	-	0.00	-	Inactive	-	-	$ -	$ -	Reclaimed
Wagon Hound	WH-20	BLM	UTU-0126943	Escape	0.00	T9S R24E, ALL - Sec 28	Inactive	Reseeded-2014	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-19	BLM	UTU-0126943	Shaft	0.00	T9S R24E, ALL - Sec 28	Active	Reseeded-2014	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-18	BLM	UTU-0126943	Shaft	0.00	T9S R24E, SE ¼ Sec 28	Active	Reseeded-2014	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-17	Private	NA-Fee	Shaft	0.00	T9S R24E, SE ¼ Sec 28	Active	Reseeded-2014	DOGM	$ -	$ -	Reclaimed
Wagon Hound	WH-17E	Private	NA-Fee	Escape	0.00	T9S R24E, SE ¼ Sec 28	Inactive	Reseeded-2015	DOGM	$ -	$ -	Reclaimed
Wagon Hound	WH-16	BLM	UTU-073071	Shaft	1.00	T9S R24E, SW ¼ Sec 27	Inactive	-	BLM	$ -	$ 26,729	Headframe, Concrete, Shaft cap, Earth, Reveg
Wagon Hound	WH-15	BLM	UTU-073071	Escape	0.50	T9S R24E, SW ¼ Sec 27	Inactive	-	BLM	$ -	$ 10,385	Shaft cap
Wagon Hound	WH-13	BLM	UTU-073071	Escape	0.00	-	-	-	DOGM	$ -	$ -	Reclaimed
Wagon Hound	WH-12	BLM	UTU-073071	Shaft	0.00	T9S R24E, SW ¼ Sec 27	Inactive	Unknown	DOGM	$ -	$ -	Reclaimed
Wagon Hound	WH-11	BLM	UTU-073071	Shaft	0.00	T9S R24E, SE ¼ Sec 27	Inactive	Reclaimed	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-10	BLM		Escape	1.00	-	-	-	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-7	BLM	UTU-060749	Shaft	2.00	T9S R24E, NW ¼ Sec 35	Active	-	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Wagon Hound	WH-5	-	UTU-060749	Shaft	1.00	T9S R24E, NW ¼ Sec 35	-	-	-	$ -	$ 10,385	Shaft cap
Wagon Hound	WH-4	BLM	UTU-060749	Shaft	1.00	T9S R24E, NW ¼ Sec 35	Active	-	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Wagon Hound	WH-4E	BLM	UTU-060749-A	Escape	0.00	T9S R24E, NW ¼ Sec 35	Active	-	BLM	$ -	$ -	Reclaimed
Wagon Hound	WH-3	BLM	-	-	0.00	T9S R24E, NE ¼ Sec 34	-	-	-	$ -	$ -	Reclaimed
Wagon Hound	WH-2	BLM	UTU-073071	Shaft	0.00	T9S R24E, NW ¼ Sec 35	Inactive	Reclaimed	NA	$ -	$ -	Reclaimed
Wagon Hound	WH-1	BLM	UTU-073071	Shaft	0.00	T9S R24E, NW ¼ Sec 35	Inactive	Reclaimed	NA	$ -	$ -	Reclaimed
Little Emma	LE-8E	BLM	UTU-78403	-	-	-	-	Reclaimed	-	$ -		-
Little Emma	LE-8	BLM	UTU-0126938	Shaft	1.25	T9S R23E, NE 1/4Sec 25	Active	Mining	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Little Emma	LE-7	BLM	UTU-0126938	Escape	1.40	T9S R24E, NE ¼ Sec 23	Inactive	Re-cap	BLM	$ -	$ 31,420	Full Mine Site w/o water well
Little Emma	LE-6	BLM	UTU-0126938	Shaft	0.00	T9S R24E, NW ¼ Sec 30	Inactive	Reseeded-2014	BLM	$ -	$ -	Reclaimed
Little Emma	LE-5	BLM	UTU-0126938	Shaft	0.00	T9S R24E, NW ¼ Sec 30	Inactive	Reclaimed	BLM	$ -	$ -	Reclaimed
Little Emma	LE-4	Private	NA-Fee	Escape	0.00	T9S R24E, SW ¼ Sec 30	Inactive	Reclaimed	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-3	Private	NA-Fee	Shaft	0.00	T9S R24E, SW ¼ Sec 30	Inactive	Reclaimed	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-9	Private	NA-Fee	Escape	0.00	T9S R24E, NE ¼ Sec 32	Inactive	-	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-10	Private	-	Shaft	0.00	T9S R24E, NE ¼ Sec 32	Inactive	Revegetate	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-16	Patented	Abysinia	Shaft	0.00	-	Inactive	Recap./Reveg.	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-17	Patented	Reopened as LE-19	Shaft	0.00	T9S R24E, SW ¼ Sec 33	Inactive	Reclaimed	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-18	Patented	Reopened as LE-19	Shaft	0.00	T9S R24E, NW ¼ Sec 33	Inactive	Recap/Reveg	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-19	Patented	Asteroid	Shaft	0.00	T9S R24E, SE ¼ Sec 33	Inactive	Recap/Reveg	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-19	Patented	Alexandria	Shaft	0.00	T9S R24E, NW ¼ Sec 33	Inactive	Recap/Reveg	DOGM	$ -	$ -	Reclaimed
Little Emma	LE-20	Patented	Asteroid	Shaft	0.00	-	Inactive	Reseeded-2014	DOGM	$ -	$ -	Reclaimed
Cottonwood 1	CW-1	BLM	UTU-072699	Shaft	1.00	T11S R24E, SE ¼ Sec 08	Inactive		BLM	$ -	$ 31,420	US Treasury Note 6/26/2006
Cottonwood 2	CW-2	BLM	UTU-072699	Shaft	1.00	T11S R24E, SW ¼ Sec 09	Inactive		BLM	$ -	$ 31,420	
Cottonwood 3	CW-3	BLM	UTU-072699	Shaft	1.00	-	Inactive		BLM	$ -	$ 31,420	
Pride Of The West	PW-4	Patented	Bald Eagle	Shaft	0.00	T11S R24E, SE ¼ Sec 08	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Pride Of The West	PW-3	Patented	Puck	Shaft	0.00	T11S R24E, SW ¼ Sec 09	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Pride Of The West	PW-2	Patented	Rebellion	Shaft	0.00	-	Inactive	Reclaimed	-	$ -	$ -	Vein blasted shut in 1979
Pride Of The West	PW-1	Patented	-	-	0.00	-	Inactive	Reclaimed	-	$ -	$ -	Vein blasted shut in 1979
Rainbow	R-1	Patented	-	-	0.00	-	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Rainbow	R-2	Patented	Turtle-Thimblerock	Shaft	0.00	T11S R24E, SW ¼ Sec 24	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Rainbow	R-3	Patented	Tennessee	Shaft	0.00	T11S R24E, SW ¼ Sec 24	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Rainbow	R-4	Patented	Tennessee	Shaft	0.00	T11S R24E, SW ¼ Sec 24	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Black Dragon	BD-?	-	-	-	-	-	-	-	-	$ -	$ -	-
Harrison	H-1	Private	NA-Fee	Shaft	0.00	T11S R24E, NW ¼ Sec 22	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Harrison	H-2	Private	NA-Fee	Shaft	0.00	T11S R24E, NW ¼ Sec 22	Inactive	Reclaimed	DOGM	$ -	$ -	1983 DOGM file states 2 to 3 acres
Harrison	H-10	Patented	Merrimac	Shaft	0.00	T11S R23E, SW ¼ Sec 01	Inactive	Reclaimed	DOGM	$ -	$ -	Released (see date column)
Road	County Road to Pump Station	ROW			1.40	SW1/4 Sec. 16 T9S R25E	Active	-		$ 1,400	$ -	Reveg
Road	County Road to Crush Plant	ROW			0.60	SW1/4 Sec. 15 T9S R25E	Active	-		$ 600	$ -	Reveg
Road	County Road to Bins at Crush Plant	ROW			0.80	NW1/4 Sec. 16 T9S R25E	Active	-		$ 800	$ -	Reveg
Road	Pump Station to Highway 45 along Eureka Vein	ROW			11.20	NE1/4 Sec. 17 T9S R25E	Active	-		$ 11,200	$ -	Reveg
Road	Highway 45 to Eureka Vein near E-21	ROW			5.80	NE1/4 Sec. 23 T9S R24E	Active	-		$ 5,800	$ -	Reveg
Road	County Road to I-15 along Independent Vein	ROW			3.10	SE1/4 Sec. 23 T9S R24E	Active	-		$ 3,100	$ -	Reveg
Road	County Road to B-37 site	ROW			2.50	NE1/4 Sec. 20 T9S R24E	Active	-		$ 2,500	$ -	Reveg
Road	County Road to B-42	ROW	BLM		1.40	SW1/4 Sec. 16 T9S R24E	Active	-		$ -	$ 1,400	Reveg
Road	B-42 to B-52	ROW	BLM		2.00	Sec. 17 T9S R24E	Active	-		$ -	$ 2,000	Reveg
Road	County Road to LE-5	ROW	BLM		1.10	SE1/4 Sec. 30 T9S R24E	Active	-		$ -	$ 1,100	Reveg
Road	County Road to WH-12	ROW			2.30	NE1/4 Sec. 27 T9S R24E	Active	-		$ 2,300	$ -	Reveg
Road	County Road to Harrison Camp	ROW			3.70	SE1/4 Sec. 15 T11S R24E	Active	-		$ 3,700	$ -	Reveg
Road	County Road to H-10	ROW			2.80	SW1/4 Sec. 6 T11S R24E	Active	-		$ 2,800	$ -	Reveg
Road	Harrison Camp to H-2 along Harrison Vein	ROW			2.10	NE1/4 Sec. 22 T11S R24E	Active	-		$ 2,100	$ -	Reveg
Road	County Road to PW-4	ROW			1.50	NW1/4 Sec. 16 T11S R24E	Active	-		$ 1,500	$ -	Reveg
Road	County Road to R-1	ROW			0.70	SW1/4 Sec. 24 T11S R24E	Active	-		$ 700	$ -	Reveg
	Pump Station and Ponds	ROW			3.80	NE1/4 Sec. 17 T9S R25E	Active	-		$ 3,800	$ -	Reveg
	Crush Plant Area	ROW			0.80	NW1/4 Sec. 16 T9S R25E	Active	-		$ 800	$ -	Reveg
	Reservoir	ROW			2.30	SW1/4 Sec. 16 T9S R25E	Active	-		$ 2,300	$ -	Reveg
	Explosives Magazine and Access	ROW			1.10	SW1/4 Sec. 24 T9S R24E	Active	-		$ 1,100	$ -	Reveg
					91.74			Totals:		$834,354	$332,898	
								Current Bonds		**$805,900**	**$563,000**	

Attachment "B"

American Gilsonite Company

Reclamation Bonding Requirements

As of April 29,2015

	UTAH DOGM	BLM	Total	Acct Bal
Advanced Title Escrow	481,000.00		481,000.00	486,311.45
Wells Fargo CD			-	-
Surety Bond	324,900.00	120,000.00	444,900.00	444,900.00
US Treasury Note		313,000.00	313,000.00	313,000.00
Cottonwood Acquisition		130,000.00	130,000.00	130,000.00
	805,900.00	563,000.00	1,368,900.00	1,374,211.45

Table of Contents

Bonanza, UT

Mines

The following is a list of mines in the Bonanza quadrangle map:

- E-34
- E-33
- E-32
- E-31
- Acid St.
- E-30W
- E-29
- E-28
- E-27
- E-14
- E-15
- E-21
- I-12
- I-30
- I-15
- I-16
- I-18
- I-24
- I-10
- I-9
- B-50
- B-52
- B-48
- B-46
- B-44
- B-42
- B-40
- B-38
- B-37
- B-28
- B-14
- B-16
- B-12
- LE-8E
- WH-22
- WH-21
- WH-20
- WH-19
- WH-18
- WH-17
- WH-17E
- WH-16
- WH-15
- WH-13
- WH-12
- WH-11

Red Wash SE, UT

Mines

The following is a list of mines in the Bonanza quadrangle map:

- LE-8
- LE-7
- LE-6
- LE-5
- LE-4
- LE-3

Southam Canyon, UT

Mines

The following is a list of mines in the Bonanza quadrangle map:

- WH-11
- WH-1
- WH-2
- WH-3
- WH-4
- WH-4E
- WH-5
- WH-7
- LE-8E
- LE-9
- LE-10
- LE-16
- LE-17
- LE-18
- LE-19
- LE-20
- PW-4

Asphalt Wash, UT

Mines

The following is a list of mines in the Bonanza quadrangle map:

- H-10

Rainbow, UT

Mines

The following is a list of mines in the Bonanza quadrangle map:

- PW-3
- PW-2
- R-2
- R-3
- R-4
- H-1
- H-2